

Microbiosci Has Established Automated Microbial Strains Breeding and Screening Platform

New York City, New York Apr 1, 2023 ([Issuewire.com](https://www.issuewire.com)) - Microbiosci, the division of Creative Biogene, one of the world's leading biological products and services providers, focuses on partnering with healthcare and life science laboratories, manufacturers, and suppliers across the globe to co-create and provide biological control materials, assay services, and consulting for microbiology, molecular diagnostics, and virology. Microbiosci is also professional in food, and cosmetic microbial detection, identification, and toxins detection. Recently, Microbiosci announced the release of its automated [microbial strains breeding](#) and screening platform to support the transformation and upgrading of industrial production.

Creative Biogene has a high-throughput automated microbial strain breeding and screening platform, with services ranging from mutagenesis library construction, single-cell screening, and adaptive evolution, to process scale-up optimization. It has complete scientific research equipment such as a flow cytometer, fluorescent inverted microscope, high-performance liquid chromatography, gas chromatography, and various bioreactors. Creative Biogene is still building a technical service system, including normal pressure and normal temperature plasma, droplet microfluidics, bioreactor online detection system, etc., which can provide a complete set of customized solutions from gene mutation to efficient breeding for strains. Creative Biogene's microbial cell bank generation team has extensive experience in manufacturing [E. coli cell banks](#) to the highest standards.

Microbial engineering strategies such as clustered regularly interspaced short palindromic repeats (CRISPR)-Cas9, multiplex automated genome engineering (MAGE), promoter engineering, CRISPR-based regulation, and synthetic small regulatory RNA (sRNA)-based knockdown, are for genome-scale engineering in microbial systems. MAGE, which modifies specific nucleotides of a genomic sequence, is used as a genome editing tool. Rational genetic engineering is the method of choice for microbial strain improvement today. In many cases, however, random mutagenesis remains the only option. Newly developed method, Atmospheric and Room Temperature Plasma (ARTP) based on radio frequency atmospheric glow discharge plasma for whole cell mutagenesis results in improved tolerance to media components, increased cell growth and cell biomass production, enhanced enzyme activity, and production of various chemicals.

Microbiosci has developed microbial cell bank systems that allow the use of the same, unchanging starting material throughout the manufacturing process. The creation of cell banks reduces the cost of continuous culture and allows the storage of cell material in an unchanged and intact form, making it a good alternative to continuous culture.

"Our team is capable to help your fermented product reach its full potential, whether it's a small development project or a commercial-scale market leadership," said Marcia Brady, the marketing director of Creative Biogene, she also added, "We can offer comprehensive microbial fermentation services to support research, process development, preclinical studies, and Phase I clinical trials, fully customizable and flexible to meet your individual needs."

About Microbiosci

Microbiosci, as the division of Creative Biogene, is always dedicated to satisfying the needs of clients covering more than 50 countries and districts. As a leading custom service provider in delivering

medicine microbiology solutions, Microbiosci has become a well-recognized industry leader with years of experience and professional scientists.

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